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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,211	06/20/2003	Boris Ravdel	D-187	5816

7590 02/24/2006

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,211

Applicant(s)

RAVDEL ET AL.

Examiner

Julian Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Heller (U.S. Pat. 3,922,174).

See col. 4 lines 27-54.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Domeniconi et al. (U.S. Pat. 4,403,021).

See Abstract and col. 1 line 25-41.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsufuji et al. (U.S. Pat. 5,759,714).

Matsufuji et al. is applied towards all of claims 1-25 for the following detailed reasons: Matsufuji et al. teaches a lithium-ion battery, i.e. a battery that reversibly absorbs and desorbs lithium, having a solution of a lithium salt in a non-aqueous organic solvent and containing a Lewis base additive such as triethylenediamine, i.e. 1,4-diazabicyclo[2.2.2]octane. See col. 2 line 56-65 and col. 4 line 67 et seq. The lithium salt is LiPF₆, *inter alia*. See col. 3 line 30. The

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electrolyte is an organic carbonate such as ethylene carbonate, *inter alia*. See col. 7 line 30 et seq. The anode, i.e. negative electrode is a carbonaceous material. See col. 13 line 4-29. The cathode, i.e. positive electrode is LiCoO_2 , *inter alia*. See col. 12 line 51 et seq.

The alleged inventive feature as understood by the examiner is a non-aqueous electrolyte containing a Lewis base additive. To this extent, the examiner notes that claims 2 and 16 is each recited in Markush format consisting of amines, phosphines and nitrogen-phosphorus bonded compounds. The triethylenediamine additive disclosed by Matsufuji et al. is readable on the amine compound of claims 2 and 16. Thus, claims 4 and 18 which further recites a phosphine compound and claims 5 and 19 which further recites a nitrogen-phosphorus bonded compound is anticipated by Matsufuji et al. to the extent that triethylenediamine is readable on an amine compound and insofar as the phosphine and nitrogen-phosphorus bonded compounds of claims 4, 5, 18 and 19 are not positively recited in the claims. Notwithstanding the disclosure of Matsufuji et al. towards the non-aqueous electrolytes (*ib.*), a similar interpretation is applied towards claims 11-13 and 25 which recites a Markush group of organic carbonates, esters, ethers, glymes, organic nitriles, sulfones and mixtures thereof.

Conclusion

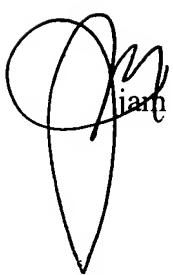
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read "Ryan", with a large loop at the bottom.


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER